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| GREGORY L BRADLEY MEDRAD INC ONE MEDRAD DRIVE INDIANOLA, PA 15051 | | | EXAMINER MACNEILL, ELIZABETH | |
| | | | ART UNIT 3767 | PAPER NUMBER |
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/619,137

Applicant(s)

REILLY, DAVID M.

Examiner

Elizabeth R. MacNeill

Art Unit

3767

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 23 October 2007.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-30 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-4 and 6-28 is/are rejected.
- 7) ☒ Claim(s) 5, 29 and 30 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- ☒ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☐ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____
- ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- ☐ Notice of Informal Patent Application
- ☐ Other: _____

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 23 October 2007 has been entered.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3. Claims 1-4, 6 and 16-20 are rejected under 35 U.S.C. 102(b) as being anticipated by Niehoff (US 5,662,612).

Niehoff teaches an injector system comprising:

A syringe (10), a plunger (12), an encoding device (physical indicia, see Claim 3);

An injector (Fig 2B) with a housing (40), a motor (98), controller (160), a sensor to read the encoding device (detector, Claim 3), a drive member (20), the drive member operable to automatically advance after the syringe is mounted on the injector (Col 3 line 48-Col 4 line 3); And a plunger engagement detection device (168).

As to claim 2,19 see Col 1 line 65; "Before an empty new syringe can be filled, it is necessary that the plunger be moved fully forward in the syringe so that the syringe can be filled by rearward retraction of the plunger"

As to claim 3,4,20 see Col 3 lines 48-61; "To operate effectively, the plunger drive controller must determine the location of the plunger 12 relative to the ends of the syringe 10... offset value may be automatically computed by detecting physical indicia on the syringe."

As to claim 16, see potentiometer 168.

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 7-15 and 21-28 are rejected under 35 U.S.C. 103(a) as being unpatentable over Niehoff as applied to claims above, and further in view of Bucchianeri (US 4,424,720).

Niehoff teaches a linear potentiometer which indicates when the drive member has progressed far enough to engage the plunger, which position is calculated using the encoded information on the syringe body. The drive member of Niehoff includes opposite sidewalls on 18. Fig 1A-1B. The plunger includes rearwardly projecting element 14.

Niehoff does not teach a light source and light sensor for detecting engagement of the plunger and drive member.

Bucchianeri teaches a syringe type injector with a plunger (11b) that is driven forward or backwards by a drive member (18). The plunger and drive member are coupled by the crank arm (17). The crank arm-plunger engagement is monitored by light source and photo-electric sensor 28a on the drive member (Fig 2a,2). See Col 15.

The plunger and drive member system of Niehoff includes structural features which would allow a light sensor/source combination to function without altering the structures of the coupling. See Fig 1A, 18/14.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to use the light source/sensor of Bucchianeri with the injector syringe system of Niehoff in order to prevent inadvertent de-coupling of the syringe/driver and injection error. Regarding the limitation that the sensor is on the plunger (claim 11), this would have been obvious to one of ordinary skill in the art since it would involve mere reversal of the parts.

Claim Objections

6. Claims 17 and 18 are objected to under 37 CFR 1.75(c), as being of improper dependent form for failing to further limit the subject matter of a previous claim. Applicant is required to cancel the claim(s), or amend the claim(s) to place the claim(s) in proper dependent form, or rewrite the claim(s) in independent form. The claims appear to repeat the same limitations already present in claim 1 with regards to the encoder and sensor.

Double Patenting

7. Claims 19-27 are objected to under 37 CFR 1.75 as being a substantial duplicate of claims 2, 3, 7-9, and 11-15. When two claims in an application are duplicates or else are so close

in content that they both cover the same thing, despite a slight difference in wording, it is proper after allowing one claim to object to the other as being a substantial duplicate of the allowed claim. See MPEP § 706.03(k). The claims only differ in that claim 1 advances the drive member "after" the syringe is mounted; the duplicate claims advance the drive member "when" the syringe is mounted.

Allowable Subject Matter

8. Claims 5, 29 and 30 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Response to Arguments

9. Applicant's arguments with respect to claims 1-30 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Elizabeth R. MacNeill whose telephone number is (571)-272-9970. The examiner can normally be reached on 9:00-5:30 M-F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Kevin Simons can be reached on (571) 272-4965. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

ERM



KEVIN C. SIRMONS
SUPERVISORY PATENT EXAMINER

